

RECEIVED

JUL 18 2003

TECH CENTER



1600

RAW SEQUENCE LISTING

DATE: 07/11/2003

PATENT APPLICATION: US/09/341,590A

TIME: 16:04:04

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

3 <110> APPLICANT: LARSEN, BJARNE DUE
 5 <120> TITLE OF INVENTION: PHARMACOLOGICALLY ACTIVE PEPTIDE CONJUGATES HAVING A
 6 REDUCED TENDENCY TOWARDS ENZYMATIC HYDROLYSIS
 8 <130> FILE REFERENCE: 55508(45487)
 10 <140> CURRENT APPLICATION NUMBER: 09/341,590A
 11 <141> CURRENT FILING DATE: 1999-07-12 /
 13 <150> PRIOR APPLICATION NUMBER: DK 0317/98
 14 <151> PRIOR FILING DATE: 1998-03-09
 16 <160> NUMBER OF SEQ ID NOS: 122
 18 <170> SOFTWARE: PatentIn Ver. 2.1
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 5
 22 <212> TYPE: PRT
 23 <213> ORGANISM: Artificial Sequence
 25 <220> FEATURE:
 26 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE
 28 <220> FEATURE:
 29 <221> NAME/KEY: MOD_RES
 30 <222> LOCATION: (2)
 31 <223> OTHER INFORMATION: D-Pen
 33 <400> SEQUENCE: 1
 W--> 34 Tyr Xaa Gly Phe Cys
 35 1 5
 38 <210> SEQ ID NO: 2
 39 <211> LENGTH: 8
 40 <212> TYPE: PRT
 41 <213> ORGANISM: Artificial Sequence
 43 <220> FEATURE:
 44 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE-Arg-Pro-Ala
 46 <220> FEATURE:
 47 <221> NAME/KEY: MOD_RES
 48 <222> LOCATION: (2)
 49 <223> OTHER INFORMATION: D-Pen
 51 <400> SEQUENCE: 2
 W--> 52 Tyr Xaa Gly Phe Cys Arg Pro Ala
 53 1 5
 56 <210> SEQ ID NO: 3
 57 <211> LENGTH: 6
 58 <212> TYPE: PRT
 59 <213> ORGANISM: Artificial Sequence
 61 <220> FEATURE:
 62 <223> OTHER INFORMATION: Description of Artificial Sequence: DPDPE-Phe
 64 <220> FEATURE:

6-7
 ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/341,590A

DATE: 07/11/2003

TIME: 16:04:04

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

```

65 <221> NAME/KEY: MOD_RES
66 <222> LOCATION: (2)
67 <223> OTHER INFORMATION: D-Pen
69 <220> FEATURE:
70 <221> NAME/KEY: MOD_RES
71 <222> LOCATION: (5)
72 <223> OTHER INFORMATION: D-Pen
74 <400> SEQUENCE: 3
W--> 75 Tyr Xaa Gly Phe Xaa Phe
76 1 5
79 <210> SEQ ID NO: 4
80 <211> LENGTH: 6
81 <212> TYPE: PRT
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE-Phe
87 <220> FEATURE:
88 <221> NAME/KEY: MOD_RES
89 <222> LOCATION: (2)
90 <223> OTHER INFORMATION: D-Pen
92 <400> SEQUENCE: 4
W--> 93 Tyr Xaa Gly Phe Cys Phe
94 1 5
97 <210> SEQ ID NO: 5
98 <211> LENGTH: 7
99 <212> TYPE: PRT
100 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Description of Artificial Sequence: DPDPE-Arg-Gly
105 <220> FEATURE:
106 <221> NAME/KEY: MOD_RES
107 <222> LOCATION: (2)
108 <223> OTHER INFORMATION: D-Pen
110 <220> FEATURE:
111 <221> NAME/KEY: MOD_RES
112 <222> LOCATION: (5)
113 <223> OTHER INFORMATION: D-Pen
115 <400> SEQUENCE: 5
W--> 116 Tyr Xaa Gly Phe Xaa Arg Gly
117 1 5
120 <210> SEQ ID NO: 6
121 <211> LENGTH: 7
122 <212> TYPE: PRT
123 <213> ORGANISM: Artificial Sequence
125 <220> FEATURE:
126 <223> OTHER INFORMATION: Description of Artificial Sequence: DPLCE-Arg-Gly
128 <220> FEATURE:
129 <221> NAME/KEY: MOD_RES
130 <222> LOCATION: (2)

```

RAW SEQUENCE LISTING

DATE: 07/11/2003

PATENT APPLICATION: US/09/341,590A

TIME: 16:04:04

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

```

131 <223> OTHER INFORMATION: D-Pen
133 <400> SEQUENCE: 6
W--> 134 Tyr Xaa Gly Phe Cys Arg Gly
135   1           5
138 <210> SEQ ID NO: 7
139 <211> LENGTH: 7
140 <212> TYPE: PRT
141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Description of Artificial Sequence: DPDPE-Phe-Ala
146 <220> FEATURE:
147 <221> NAME/KEY: MOD_RES
148 <222> LOCATION: (2)
149 <223> OTHER INFORMATION: D-Pen
151 <220> FEATURE:
152 <221> NAME/KEY: MOD_RES
153 <222> LOCATION: (5)
154 <223> OTHER INFORMATION: D-Pen
156 <400> SEQUENCE: 7
W--> 157 Tyr Xaa Gly Phe Xaa Phe Ala
158   1           5
161 <210> SEQ ID NO: 8
162 <211> LENGTH: 15
163 <212> TYPE: PRT
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Description of Artificial Sequence: DSIP-(Lys-Glu)3
169 <400> SEQUENCE: 8
170 Trp Ala Gly Gly Asp Ala Ser Gly Glu Lys Glu Lys Glu Lys Glu
171   1           5           10           15
174 <210> SEQ ID NO: 9
175 <211> LENGTH: 15
176 <212> TYPE: PRT
177 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Description of Artificial Sequence: DSIP-(Glu)6
182 <400> SEQUENCE: 9
183 Trp Ala Gly Gly Asp Ala Ser Gly Glu Glu Glu Glu Glu Glu
184   1           5           10           15
187 <210> SEQ ID NO: 10
188 <211> LENGTH: 11
189 <212> TYPE: PRT
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: Leu-enkephalin-(Glu)6
195 <400> SEQUENCE: 10
196 Tyr Gly Gly Phe Leu Glu Glu Glu Glu Glu Glu
197   1           5           10
200 <210> SEQ ID NO: 11

```

RAW SEQUENCE LISTING

DATE: 07/11/2003

PATENT APPLICATION: US/09/341,590A

TIME: 16:04:04

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

```

201 <211> LENGTH: 11
202 <212> TYPE: PRT
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:
206 <223> OTHER INFORMATION: Description of Artificial Sequence: Leu-enkephalin-(Lys)6
208 <400> SEQUENCE: 11
209 Tyr Gly Gly Phe Leu Lys Lys Lys Lys Lys Lys
210   1           5           10
213 <210> SEQ ID NO: 12
214 <211> LENGTH: 5
215 <212> TYPE: PRT
216 <213> ORGANISM: Homo sapiens
218 <400> SEQUENCE: 12
219 Tyr Gly Gly Phe Leu
220   1           5
223 <210> SEQ ID NO: 13
224 <211> LENGTH: 9
225 <212> TYPE: PRT
226 <213> ORGANISM: Homo sapiens
228 <400> SEQUENCE: 13
229 Cys Tyr Ile Gln Asn Cys Pro Leu Gly
230   1           5
233 <210> SEQ ID NO: 14
234 <211> LENGTH: 14
235 <212> TYPE: PRT
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Description of Artificial Sequence: AF 12505
241 <400> SEQUENCE: 14
242 Ile Glu Gly Pro Thr Leu Arg Gln Trp Leu Ala Ala Arg Ala
243   1           5           10
246 <210> SEQ ID NO: 15
247 <211> LENGTH: 14
248 <212> TYPE: PRT
249 <213> ORGANISM: Homo sapiens
251 <220> FEATURE:
252 <223> OTHER INFORMATION: insulin-like growth factor I (57-70)
254 <400> SEQUENCE: 15
255 Ala Leu Leu Glu Thr Tyr Cys Ala Thr Pro Ala Lys Ser Glu
256   1           5           10
259 <210> SEQ ID NO: 16
260 <211> LENGTH: 12
261 <212> TYPE: PRT
262 <213> ORGANISM: Homo sapiens
264 <220> FEATURE:
265 <223> OTHER INFORMATION: insulin-like growth factor I (30-41)
267 <400> SEQUENCE: 16
268 Gly Tyr Gly Ser Ser Arg Arg Ala Pro Gln Thr
269   1           5           10

```

RAW SEQUENCE LISTING

DATE: 07/11/2003

PATENT APPLICATION: US/09/341,590A

TIME: 16:04:04

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

```

272 <210> SEQ ID NO: 17
273 <211> LENGTH: 18
274 <212> TYPE: PRT
275 <213> ORGANISM: Homo sapiens
277 <220> FEATURE:
278 <223> OTHER INFORMATION: insulin-like growth factor I (24-41)
280 <400> SEQUENCE: 17
281 Tyr Phe Asn Lys Pro Thr Gly Tyr Gly Ser Ser Arg Arg Ala Pro
282   1               5               10               15
284 Gln Thr
287 <210> SEQ ID NO: 18
288 <211> LENGTH: 8
289 <212> TYPE: PRT
290 <213> ORGANISM: Homo sapiens
292 <220> FEATURE:
293 <223> OTHER INFORMATION: insulin-like growth factor II (33-40)
295 <400> SEQUENCE: 18
296 Ser Arg Val Ser Arg Arg Ser Arg
297   1               5
300 <210> SEQ ID NO: 19
301 <211> LENGTH: 9
302 <212> TYPE: PRT
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: Description of Artificial Sequence: insulin-like
307      growth [tyro] factor II (33-40)
309 <400> SEQUENCE: 19
310 Tyr Ser Arg Val Ser Arg Arg Ser Arg
311   1               5
314 <210> SEQ ID NO: 20
315 <211> LENGTH: 16
316 <212> TYPE: PRT
317 <213> ORGANISM: Homo sapiens
319 <220> FEATURE:
320 <223> OTHER INFORMATION: insulin-like growth factor II (69-84)
322 <400> SEQUENCE: 20
323 Asp Val Ser Thr Pro Pro Thr Val Leu Pro Asp Asn Phe Pro Arg Tyr
324   1               5               10               15
327 <210> SEQ ID NO: 21
328 <211> LENGTH: 6
329 <212> TYPE: PRT
330 <213> ORGANISM: Artificial Sequence
332 <220> FEATURE:
333 <223> OTHER INFORMATION: Description of Artificial Sequence: GHRP-6
335 <220> FEATURE:
336 <221> NAME/KEY: MOD_RES
337 <222> LOCATION: (2)
338 <223> OTHER INFORMATION: D-Trp
340 <220> FEATURE:

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/341,590A

DATE: 07/11/2003
TIME: 16:04:05

Input Set : A:\55508-revised sequence listing 1 July 03.txt
Output Set: N:\CRF4\07112003\I341590A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 2
Seq#:2; Xaa Pos. 2
Seq#:3; Xaa Pos. 2,5
Seq#:4; Xaa Pos. 2
Seq#:5; Xaa Pos. 2,5
Seq#:6; Xaa Pos. 2
Seq#:7; Xaa Pos. 2,5
Seq#:21; Xaa Pos. 2,5
Seq#:27; Xaa Pos. 1,12
Seq#:28; Xaa Pos. 1
Seq#:29; Xaa Pos. 1
Seq#:31; Xaa Pos. 4
Seq#:32; Xaa Pos. 1,4
Seq#:34; Xaa Pos. 8
Seq#:35; Xaa Pos. 1,4,8
Seq#:42; Xaa Pos. 3
Seq#:45; Xaa Pos. 1
Seq#:47; Xaa Pos. 1
Seq#:48; Xaa Pos. 1
Seq#:51; Xaa Pos. 1,3,5,7
Seq#:57; Xaa Pos. 1
Seq#:58; Xaa Pos. 2
Seq#:59; Xaa Pos. 3
Seq#:60; Xaa Pos. 4
Seq#:61; Xaa Pos. 5
Seq#:63; Xaa Pos. 1
Seq#:64; Xaa Pos. 2
Seq#:65; Xaa Pos. 3
Seq#:66; Xaa Pos. 4
Seq#:67; Xaa Pos. 5
Seq#:68; Xaa Pos. 6
Seq#:69; Xaa Pos. 1,2
Seq#:70; Xaa Pos. 1,3
Seq#:71; Xaa Pos. 1,4
Seq#:72; Xaa Pos. 1,5
Seq#:73; Xaa Pos. 1,6
Seq#:74; Xaa Pos. 2,3
Seq#:75; Xaa Pos. 2,4
Seq#:76; Xaa Pos. 2,5
Seq#:77; Xaa Pos. 2,6
Seq#:78; Xaa Pos. 3,4
Seq#:79; Xaa Pos. 3,5
Seq#:80; Xaa Pos. 3,6
Seq#:81; Xaa Pos. 4,5

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/11/2003
PATENT APPLICATION: US/09/341,590A TIME: 16:04:05

Input Set : A:\55508-revised sequence listing 1 July 03.txt
Output Set: N:\CRF4\07112003\I341590A.raw

Seq#:82; Xaa Pos. 4,6
Seq#:83; Xaa Pos. 5,6
Seq#:93; Xaa Pos. 6,15
Seq#:94; Xaa Pos. 12,21
Seq#:95; Xaa Pos. 12,21
Seq#:96; Xaa Pos. 1,3,4
Seq#:100; Xaa Pos. 6,7,8,9,10,11

VERIFICATION SUMMARY

DATE: 07/11/2003

PATENT APPLICATION: US/09/341,590A

TIME: 16:04:05

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

L:34 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:52 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:447 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:810 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:954 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
L:973 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:1011 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
L:1030 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:1062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
L:1081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:0
L:1100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0
L:1119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0
L:1138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:0
L:1157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
L:1176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:0
L:1201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:0
L:1226 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
L:1251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0
L:1276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0
L:1295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:0
L:1320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0
L:1345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0
L:1370 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77 after pos.:0
L:1389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78 after pos.:0
L:1414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:0
L:1439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:0
L:1458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0
L:1483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:82 after pos.:0
L:1502 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:0
L:1678 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:0
L:1704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:94 after pos.:0

VERIFICATION SUMMARY

DATE: 07/11/2003

PATENT APPLICATION: US/09/341,590A

TIME: 16:04:05

Input Set : A:\55508-revised sequence listing 1 July 03.txt

Output Set: N:\CRF4\07112003\I341590A.raw

M:341 Repeated in SeqNo=94

L:1730 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:0